

Application No.: 10/596,103

Amendment Submitted with RCE dated November 23, 2009

Reply to Office Action of July 22, 2009

Docket No.: 1848-7 PCT/US/RCE

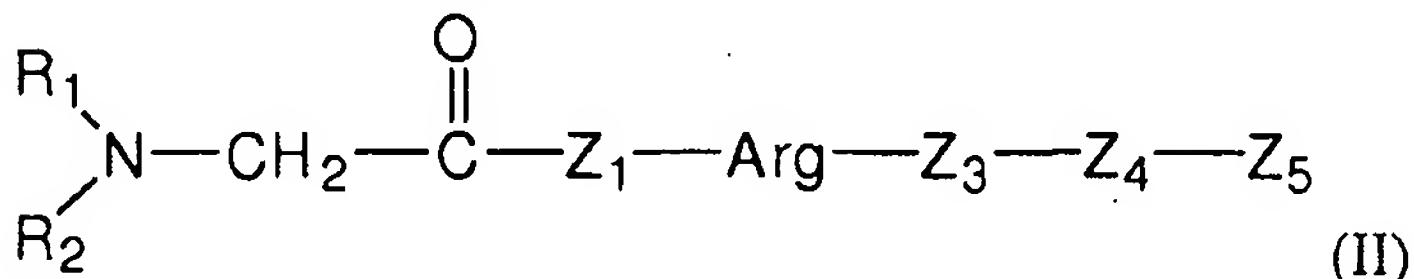
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AMENDMENTS TO THE CLAIMS:

The following list of claims will replace all prior versions, and listings, of claims. Please amend the claims as follows:

1.-16. (Cancelled).

17. (Currently amended) A method for treating shock comprising administering to a subject ~~in need of such treatment~~ an effective amount of a peptide of Formula II



wherein:

R_1 and R_2 being equal or different denote hydrogen, a saturated or unsaturated hydrocarbon comprising from 1 to 10 carbon atoms;

Z_1 denotes a histidine residue;

Arg denotes an arginine residue;

Z_3 denotes a proline or valine residue;

Z_4 denotes a leucine or valine residue; and

Z_5 denotes a peptide derived from the B β chain of the fibrin, which peptide has the biological property of matching the inducible VE-cadherin binding motif on the B β -chain (i.e., B β ₁₅₋₄₂) of human fibrin comprising:

Asp-Lys-Arg-Glu-Glu-Ala-Pro-Ser-Leu-Arg-Pro-Ala-Pro-Pro-Ile-Ser-Gly-Gly-Gly-Tyr-Arg.

18. (Currently amended) ~~A~~ The method according to claim 17, wherein the saturated or unsaturated hydrocarbon in the meaning of R_1 and R_2 comprises 1 to 3 carbon atoms.

19. (Currently amended) ~~A~~ The method according to ~~any one of claims~~ claim 17, wherein: Z_5 is

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a peptide comprising the amino acid sequence:

~~Asp-Lys-Lys-Arg-Glu-Glu-Ala-Pro-Ser-Leu-Arg-Pro-Ala-Pro-Pro-Pro-Ile-Ser-Gly-Gly-Gly-Tyr-Arg;~~

~~Z₁~~ denotes a histidine residue;

~~Arg~~ denotes an arginine residue;

~~Z₃~~ denotes a proline residue; and

~~Z₄~~ denotes a ~~leucinene~~ leucine residue.

20. (Currently amended) A The method according to any one of claims claim 18, wherein: ~~Z₅~~ is a peptide comprising the amino acid sequence:

~~Asp-Lys-Lys-Arg-Glu-Glu-Ala-Pro-Ser-Leu-Arg-Pro-Ala-Pro-Pro-Pro-Ile-Ser-Gly-Gly-Gly-Tyr-Arg;~~

~~Z₁~~ denotes a histidine residue;

~~Arg~~ denotes an arginine residue;

~~Z₃~~ denotes a proline residue; and

~~Z₄~~ denotes a ~~leucinene~~ leucine residue.

21. (Currently amended) A method for treating shock comprising administering to a subject in need of such treatment an ~~effe~~ctive effective amount of a peptide having the N-terminal sequence:

Gly-His-Arg-Pro-Leu-Asp-Lys-Lys-Arg-Glu-Glu-Ala-Pro-Ser-Leu-Arg-Pro-Ala-Pro-Pro-Pro-Ile-Ser-Gly-Gly-Tyr-Arg (SEQ ID NO: 3);

which peptide has the biological property of matching the inducible VE-cadherin binding motif on the B β -chain (i.e., B β ₁₅₋₄₂) of human fibrin.

22. (Currently amended) The method according to claim 21, wherein the peptide is of formula:

Gly-His-Arg-Pro-Leu-Asp-Lys-Lys-Arg-Glu-Glu-Ala-Pro-Ser-Leu-Arg-Pro-Ala-Pro-Pro-Pro-Ile-Ser-Gly-Gly-Tyr-Arg (SEQ ID NO: 3).

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23. (Currently amended) The method of claim 17, wherein the shock is associated with one or more ~~out of~~ from the group comprising bacterial toxins, disseminated intravascular coagulopathy, necrotizing fasciitis, ~~haemorrhagie~~ hemorrhagic shock following viral infection, in particular caused by filovirus, arenaviridae, bunyaviridae, flavivirus, dengue, acute hemorrhagic respiratory failure caused by ~~infectious~~ infectious agents or autoimmune diseases, organ failure after organ injury, in particular through myocardial infarction, vascular surgery, clamping of organs, ~~haemorrhagie~~ hemorrhagic shock, lung infarction, liver infarction, gut infarction, surgical procedures and stroke, and organ dysfunction of grafted organs.

24. (Currently amended) The method of claim 18, wherein the shock is associated with one or more ~~out of~~ from the group comprising bacterial toxins, disseminated intravascular coagulopathy, necrotizing fasciitis, ~~haemorrhagie~~ hemorrhagic shock following viral infection, in particular caused by filovirus, arenaviridae, bunyaviridae, flavivirus, dengue, acute hemorrhagic respiratory failure caused by ~~infectious~~ infectious agents or autoimmune diseases, organ failure after organ injury, in particular through myocardial infarction, vascular surgery, clamping of organs, ~~haemorrhagie~~ hemorrhagic shock, lung infarction, liver infarction, gut infarction, surgical procedures and stroke, and organ dysfunction of grafted organs.

25. (Currently amended) The method of claim 19, wherein the shock is associated with one or more ~~out of~~ from the group comprising bacterial toxins, disseminated intravascular coagulopathy, necrotizing fasciitis, ~~haemorrhagie~~ hemorrhagic shock following viral infection, in particular caused by filovirus, arenaviridae, bunyaviridae, flavivirus, dengue, acute hemorrhagic respiratory failure caused by ~~infectious~~ infectious agents or autoimmune diseases, organ failure after organ injury, in particular through myocardial infarction, vascular surgery, clamping of organs, ~~haemorrhagie~~ hemorrhagic shock, lung infarction, liver infarction, gut infarction, surgical procedures and stroke, and organ dysfunction of grafted organs.

26. (Currently amended) The method of claim 20, wherein the shock is associated with one or

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more ~~out of~~ from the group comprising bacterial toxins, disseminated intravascular coagulopathy, necrotizing fasciitis, ~~haemorrhagie~~ hemorrhagic shock following viral infection, in particular caused by filovirus, arenaviridae, bunyaviridae, flavivirus, dengue, acute hemorrhagic respiratory failure caused by ~~infectious~~ infectious agents or autoimmune diseases, organ failure after organ injury, in particular through myocardial infarction, vascular surgery, clamping of organs, ~~haemorrhagie~~ hemorrhagic shock, lung infarction, liver infarction, gut infarction, surgical procedures and stroke, and organ dysfunction of grafted organs.

27. (Currently amended) The method of claim 21, wherein the shock is associated with one or more ~~out of~~ from the group comprising bacterial toxins, disseminated intravascular coagulopathy, necrotizing fasciitis, ~~haemorrhagie~~ hemorrhagic shock following viral infection, in particular caused by filovirus, arenaviridae, bunyaviridae, flavivirus, dengue, acute hemorrhagic respiratory failure caused by ~~infectious~~ infectious agents or autoimmune diseases, organ failure after organ injury, in particular through myocardial infarction, vascular surgery, clamping of organs, ~~haemorrhagie~~ hemorrhagic shock, lung infarction, liver infarction, gut infarction, surgical procedures and stroke, and organ dysfunction of grafted organs.

28. (Currently amended) The method of claim 22, wherein the shock is associated with one or more ~~out of~~ from the group comprising bacterial toxins, disseminated intravascular coagulopathy, necrotizing fasciitis, ~~haemorrhagie~~ hemorrhagic shock following viral infection, in particular caused by filovirus, arenaviridae, bunyaviridae, flavivirus, dengue, acute hemorrhagic respiratory failure caused by ~~infectious~~ infectious agents or autoimmune diseases, organ failure after organ injury, in particular through myocardial infarction, vascular surgery, clamping of organs, ~~haemorrhagie~~ hemorrhagic shock, lung infarction, liver infarction, gut infarction, surgical procedures and stroke, and organ dysfunction of grafted organs.